

NATIONAL WORKSHOP ON CHEMICAL DISASTER MANAGEMENT

A
Presentation
by
Shri V. N. Patel
Director,
Industrial Safety & Health,
Gujarat State

1

Chemical Emergencies

- Factories
(Storage, Process, Handling and Transportation)
- Pipe line
(CNG, Petroleum Product)
- Transportation
 - Road
 - Railway
 - Sea
 - Air

2

Types of Emergencies

- Fire
 - pool
 - jet
 - BLEVE
 - UNCVCE / CVCE
- Vessel explosion
- Toxic release
- Radiation
- Corrosion

3

Mitigation of Chemical Emergencies – A prime importance.

Chemical Emergencies last for very short duration as
compared to natural calamities like cyclone etc.

Hence

Prevention and mitigation is of prime importance.

4

Legal Frame Work

- Factories Act 1948
- Explosive Act,
- M.V. Act,
- E.P. Act,
- MSIHC Rules 1989.
- Chemical Accident (EPPR) Rules 1996
- State Disaster Management Act
- Central Disaster Management Act
- N.D.M.A. Guide line.
- Others

5

Important Features

- Incident Controller
- Site Main Controller
- Experts
- Public Information
- Evacuation
- Area Cordoning
- Communication
- Rescue
- Fire Control
- Medical
- Law & Order
- Security
- Demolition / Reconstruction
- Environment Monitoring
- Shelter
- Relief
- Rehabilitation

6

On-Site Emergency Plan

- 530 M.A.H. Factories in Gujarat.
- Plans for all MAH Factories
- Prepared as per C.I.F. Guideline
- Inventory of hazardous chemicals
- Hazard Identification, Risk Assessment, Environment Impact Assessment .
- Rehearsal & updation every year

7

Disaster Prevention

Capacity Building :

- Training to workers by departmental officers
- 90 safety training programmes through NGOs per year.
- Induction and Refresher training by large Industries.
- Celebration of National Safety Day/Week every year
- 19 days State Level Disaster Management Campaign
- Safety awareness through hoarding,

Contd.....

8

Disaster Prevention

Capacity Building :

- Awareness through web site.
 - Industrial disaster management system developed by the department
 - Two web site on Industrial Safety developed and hosted through NGOs.
- Literature and Pamphlet
 - Booklet through VDC plan
 - Departmental booklet & pamphlet for public information

Contd.....
9

Disaster – Prevention

Action Plan :

- State Shram Awards
- Third Party Inspection through 510 Competent Persons.
- Vigorous three tier inspection system.
- Appointment of 390 Safety Officers.
- Recognition of 6 institutes for worker safety training.
- 265 doctors holding certificates in Industrial Health.
- Safety Officer Courses in 6 districts.
- Recognition of 2 Institutes for Supervisor Training.
- Officers of the Department trained for web-based National Mechanism and Reporting System.

Contd.....
10

Disaster – Prevention

- Local Crisis Groups / Off-Site Emergency Plans
 - 43 Local Crisis Groups in the State
 - Majority plans prepared
 - Requires amendment as per NDMA guideline and GI based emergency planning and response system
 - Periodical meeting, rehearsal and training.
 - Capacity building of general public

Contd.....

11

Disaster – Prevention

- District Crisis Groups / Off-Site Emergency Plans
 - 25 District Crisis Groups in the State.
 - All plans prepared.
 - Compulsory rehearsal every year.
 - Updation of all plans every year
 - Periodical meeting of all DCG
 - GIS based emergency plan prepared for 6 districts
 - Up gradation of GI based plan of above 6 districts given by MoEF
 - Planning to prepare GIS based plan for other 3 districts.
 - Capacity building of district authority and general public through training.

Contd.....
12

Disaster – Prevention

- State Crisis Group / State Off-Site Emergency Plan
 - Prepared in 2004
 - Reviewed in 2006
 - Updation as per NDMA guideline is in progress
 - Technical Experts are declared

Contd.....

13

Disaster – Prevention

- Control Rooms
 - Special Control Rooms established at Vapi, Atul, Ankleshwar, Dahej, Vadodara
 - Planning for establishment of Special Control Rooms for all districts as per DPMC Ankleshwar.
 - Periodical training for capacity building of all stake holders.
 - Mitigation during emergency.

Contd.....

14

DPMC Building



Disaster Prevention and Management Centre, Ankleshwar

15

Role of Authority

- Individual plan of the department
 - medical,
 - Fire,
 - police,
 - relief
 - Rehabilitation etc.
- Public information, evacuation, rescue, area cordoning, security etc.
- Before, During, After

16

Disaster Mitigation in Development Activities

- Development Commissioner has authorized the Departmental Officers for the implementation of the Factories Act and other related Acts in Special Economic Zones situated in Gujarat.
- Due care for safety of the workers as well as general public will be guarded.

17

Forthcoming Development

- Procurement of risk assessment, gas dispersion software.
- Development of SOPs through outside agencies.
- Preparation of training modules for workers, supervisors and occupiers/managers.
- Procurement of LCD projectors for all offices.
- Preparation of safety literature for creating awareness amongst workers and supervisors.

18

thanks

19